



Vented, 4.5:1 pilot ratio, load reactive, load control valve SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-23A



sunhydraulics.com/model/MWGG

#### CONFIGURATION

L	Control	Standard Screw Adjustment
J	Functional Setting Range	2000 - 5000 psi (140 - 350 bar), 3000 psi (210 bar) Standard Setting
N	Seal Material	Buna-N

Vented, load reactive load control valves with pilot assist combine two valves; a check valve and a relief valve. The check valve allows free flow from the directional valve (port 2) to the load (port 1) while a direct-acting, pilot-assisted relief valve controls flow from port 1 to port 2. Pilot assist at port 3 lowers the effective setting of the relief valve at a rate determined by the pilot ratio. Backpressure at port 2 does not affect the valve setting because the spring chamber references the vent (port 4).

### - TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION SEE CONFIGURATION SECTION.

Cavity	T-23A
Series	3
Capacity	240 L/min.
Pilot Ratio	4.5:1
Maximum Recommended Load Pressure	See Technical Features
Factory Pressure Settings Established at	30 cc/min.
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at Reseat	0,3 cc/min.
Check Cracking Pressure	1,7 bar
Adjustment - No. of CCW Turns from Min. to Max. Setting	9
Reseat	≥77% of setting
Valve Hex Size	31,8 mm
Valve Installation Torque	203 - 217 Nm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006
Model Weight	0.95 kg.

### **CONFIGURATION OPTIONS**

Model Code Example: MWGGLJN

CONTROL (L

(L) FUNCTIONAL SETTING RANGE

J 2000 - 5000 psi (140 - 350 bar), 3000

(J) SEAL MATERIAL

psi (210 bar) Standard Setting

N Buna-N
V Viton

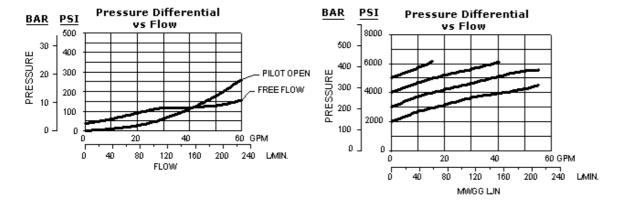
**H** 1000 - 4000 psi (70 - 280 bar), 3000 psi (210 bar) Standard Setting

## **TECHNICAL FEATURES**

- Set at least 1.3 times the maximum load induced pressure (1.5 times when the setting is less than 2000 psi or 140 bar).
- The maximum recommended load pressure for the H range is 3080 psi (212 bar).
- The maximum recommended load pressure for the J range is 3850 psi (265 bar).
- Turn adjustment clockwise to decrease setting and release load.
- Full clockwise setting is 1000 psi (70 bar) for the H range and 2000 psi (140 bar) for the J range.
- These valves are capable of modulating over a broader range of flows than the pure poppet designs. The longer stroke allows us to incorporate a uni-directional
  damping device that smooths the opening and lets the valve close quickly.
- This valve is functionally a 4-port counterbalance valve. It seats as a poppet valve and modulates as a spool valve, offering the best of both valve types.
- All 4-port counterbalance, load control, and pilot-to-open check cartridges are physically interchangeable (i.e. same flow path, same cavity for a given frame size).
- Sun load control and counterbalance cartridges can be installed directly into a cavity machined in an actuator housing for added protection and improved stiffness in the circuit.
- This valve has positive seals between all ports.
- This valve has full relief capacity.
- Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

#### PERFORMANCE CURVES

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# **RELATED MODELS**

• MWGGX Fixed setting, vented, 4.5:1 pilot ratio, load reactive, load control valve

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